

REMARKS

New claims 17-20 are added, hence, claims 1-20 are all the claims pending in the application.

Specification

It is respectfully submitted that a person of ordinary skill in the art would understand that the specification describes a “computer-readable medium,” and accordingly Applicant respectfully traverses the objection to the specification. Nevertheless, the specification is amended to make it abundantly clear that the specification provides proper antecedent basis for a computer-readable medium. No new matter is introduced.

Claim Objections

Claims 1-9 are objected to because of informalities. Claims 1 and 9 are amended and the Examiner is respectfully requested to withdraw the objection. It is respectfully submitted that the claims are patentable without the amendments.

Claim Rejections - 35 U.S.C. § 101

Claims 1-4 are rejected under 35 U.S.C. § 101 because the claimed invention is allegedly directed to non-statutory subject matter.

Claim 1 is amended to recite that the digital certificate is recorded on a computer readable medium. Applicant respectfully submits that this claim recites subject matter that falls within at least one of the statutory categories enumerated in 35 U.S.C. § 101. Applicant also submits that claim 1 does not recite merely non-functional descriptive material. Rather, these claims recite functional descriptive material that consists of data structures which impart functionality when employed as a computer component. *See* MPEP § 2106.01. For example, claim 1 recites a distinguished name (DN) field and a common name (CN) field, both of which

are functionally related. According to claim 1, the CN field is within the DN field and contains a resource identifier, “wherein the resource identifier contains information identifying each of a plurality of certificate-issuing resources in a certification path of the digital certificate.”

The MPEP makes it clear that “a claimed computer-readable medium encoded with a data structure defines structural and functional interrelationships between the data structure and the computer software and hardware components which permit the data structure's functionality to be realized, and is thus statutory.” *Id.* Accordingly, the Examiner is respectfully requested to withdraw the rejection under § 101.

Claim Rejections - 35 U.S.C. § 103

Claims 1-16 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Benantar et al. (US Publication No. 2003/0065920, hereinafter “Benantar”) in view of Perlman (US Publication No. 2002/0147905). Applicant respectfully traverses the rejection for at least the following reasons.

Claim 1, for example, is directed to a digital certificate recorded on a computer readable medium. The digital certificate includes a distinguished name (DN) field and a common name (CN) field within the DN field that contains a resource identifier. The resource identifier contains information identifying each of a plurality of certificate-issuing resources in a certification path of the digital certificate.

In the Office Action it is asserted that Benantar teaches most of the elements of claim 1. However, it is admitted that Benantar does not teach the claim limitation that the resource identifier contains information identifying *each of a plurality of certificate-issuing resources in a certification path* of the digital certificate.

The portion of Benantar relied upon to reject the claims appears to teach a conventional digital certificate which is similar to the conventional digital certificate described in the Background portion of the present specification.

Perlman is cited for teaching the feature missing from Benantar. Perlman describes taking a conventional certificate chain, as shown in Fig. 4, which includes a plurality of linked certificates (see paragraph [0034]) and shortens that certificate chain into a collapsed certificate 50, shown in Fig. 5 (see paragraph [0037]). Perlman states that the collapsed certificate contains not only the name of the Certificate Authority (CA), but also the names of each of the Intermediate Certificate Authorities (ICAs) in the certification chain. See paragraph [0038]. The collapsed certificate also includes digests for the CA and each of the ICAs that contain digests of the public keys for each.

According to the Office Action, it would have been obvious to place the identification information from the collapsed certificate taught by Perlman, presumably in the CN field of Benantar, to “reduce bandwidth utilization and processing overhead associated with the processing of linked certificates.” See Office Action at p. 5.

Applicant respectfully submits that there would be no reason to modify a conventional certificate to include Perlman’s collapsed in the CN field of a conventional certificate. Perlman already teaches obtaining the collapsed certificate directly from a directory server (DS) in response to either a client requesting the certificate chain or a system administrator requesting the certificate chain. See paragraph [0032]. The benefit of reducing bandwidth utilization and processing overhead associated with the processing of linked certificates is not achieved by placing the collapsed certificate in the CN field of a certificate. Rather, that benefit is obtained by retrieving the collapsed certificate from a directory server without having to modify the

structure of a conventional certificate. Accordingly, a person of ordinary skill in the art would have no reason to modify a conventional certificate as asserted in the Office Action.

Further, even if Benantar was modified to include the collapsed certificate taught by Perlman, the combination would not satisfy all the limitations of the claims. Claim 1, for example, recites the common name (CN) field “containing a resource identifier,” in which that resource identifier “contains information identifying each of a plurality of certificate-issuing resources.” In contrast, the asserted combination would contain a plurality of identifiers, one for each of the CA and the ICAs, none of which would identify “each of a plurality of certificate-issuing resources.” Accordingly, since the combination of Benantar and Perlman asserted in the Office Action, does not satisfy all the limitations in claim 1, the combination does not render claims 1-4 unpatentable.

New claims 17-20 are added, which specify that the resource identifier is a single identifier that identifies a trusted root resource and an identity of a resource issuing the digital certificate. Support is found at least in Fig. 1 and paragraph [32] with identifier 108. It is respectfully submitted that neither Benantar’s conventional certificate nor Perlman’s collapsed certificate, teaches such a single identifier.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

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